Human XPA protein secreted from Saccharomyces cerevisiae.

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The human XPA (xeroderma pigmentosum group A) protein is a zinc finger DNA binding factor necessary for damage recognition in nucleotide excision repair. Anticipating the need for large amounts of purified protein for biochemical and structural studies, we have constructed an episomal vector (pEP862) for use in Saccharomyces cerevisiae. This expression vector incorporates the yeast PHO5 inducible promoter, the prepro-alpha-factor leader sequence, and a polyhistidine affinity tag. Expression of XPA cDNA in this vector has resulted in secretion of the 34kDa XPA protein at a concentration of lmg/L yeast growth medium. The recombinant XPA protein was affinity purified using Ni<sup>2+</sup> agarose. Functional studies of the recombinant XPA protein are in progress.

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